Digit flexor pulley reconstruction using a tendon graft looped around the phalanx can be a frustrating procedure. Reported make-shift techniques include right-angle hemostats (Lauer), penrose drains or bending a K-wire into a loop for a passer (Sanders, 1987). These options are time consuming, add surgical steps, and do not address the challenge and frustration associated with multiple passings of the graft around the acute curvature of the phalanx. We present the utility of using a small shoulder rotator cuff repair suture retriever instrument (SRI) to facilitate tendon wrapping around the phalanx and the cost saving it offers.

### METHODS

All thirteen plastic surgeons practicing hand surgery in the of city Ottawa (Canada) were surveyed. They were asked for the number of loops they perform in a tendon graft pulley reconstruction, the instrument used, and the time it takes them to complete all passes (without the time of sutting the graft in place). We obtained the estimated total cost per minute of running an operating room (OR) from our OR managerial team for the cost comparison.

### FINDINGS

<table>
<thead>
<tr>
<th>Surgeons Surveyed/ Surgeons included in study (having performed flexor pulley reconstruction in their career)</th>
<th>Number of loops performed</th>
<th>Instrument Used (Number of surgeons using instrument)</th>
<th>Time to complete loops (minutes) with mosquito or Lauer</th>
<th>Proposed method with SRI mean time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13/6</td>
<td>2-3</td>
<td>Mosquito hemostat (4), Lauer (2)</td>
<td>5-20 (mean 10.5)</td>
<td>2</td>
</tr>
</tbody>
</table>

The estimated cost of running an operating room ranges from $20 to $60 per minutes at our hospital centers. The SRI costs $73.17 (Conmed Linvatec Co., Florida, USA) and if used, within the three minutes of reduced surgical time compared to the quickest reported time (5 minutes) with a Lauer, the SRI has paid for itself and total cost saving has already begun with a “surplus” of $16.83 (using a conservative estimation of $30/minute of OR time).

### CONCLUSION

If it takes a hand surgeon longer than five minutes to prepare and loop a tendon graft around the phalanx for flexor pulley reconstruction, then one should consider using a suture tendon retriever. The SRI is easy to use, reduces surgical steps (even with multiple tendon loopings), and requires less time to perform which decreases total operating room costs.